

Applicant: James A. Proctor, Jr.
Application No.: 10/774,860

REMARKS/ARGUMENTS

After the foregoing Amendment, Claims 1, and 3-16 are currently pending in this application. Claim 2 has been canceled without prejudice. Claims 1, 3-4, 14 and 16 have been amended to make stylistic revisions without intending to affect the scope of the claims. Applicant submits that no new matter has been introduced into the application by these amendments.

Allowable Subject Matter

The Examiner is thanked for indicating that claims 7-9 and 11-15 contain allowable subject matter.

Claim Rejections - 35 USC §103(a)

Claims 1, 3-6, 10, and 16 stand rejected under 35 USC § 103(a) as being unpatentable over De Champlain et al. (US Patent No. 6,590,535) in view of Williams et al. (US Patent Appln. No. 2002/0042290). These rejections in view of the amended claims are respectfully traversed.

De Champlain et al. is directed to wireless tracking system for tracking wireless target. Williams et al. is directed to a method and apparatus for calibrating an antenna array in order to equalize signals in a transmit and receive change. The present claims are directed to an adaptive method for operating a relay station having a directional antenna that forwards message from a first node to a second node.

De Champlain et al. is not analogous art because De Champlain et al. is directed to tracking of a wireless target and does not teach or suggest relaying of messages from a first wireless node to a second wireless node. Moreover, De

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Champlain et al. does not teach or suggest the features of the present claims because De Champlain et al. does not teach or suggest determining an identification of a second node from an initial portion of the wireless transmission. Rather, De Champlain et al. teaches determining the identification of the transmitting node, not a receiving node for tracking purposes. As explained in Column 3, lines 2-24 of De Champlain et al., while receiving a message from a target node, the tracking node measures the direction from the incoming node for steering the antenna in the direction of the target node. De Champlain et al. teaches using the transmission interval and the transmission angle to determine the position of the sending target node.

In contrast, according to the present claims, the relay station determines the identification of the destination node from an initial portion of a received message from a transmitting node, where the destination node is different from the transmitting node. The relay then uses the identification of the destination node to determine the preferred angle for transmission to the destination node by looking up the preferred angle in a stored table, as per claim 10. The relay does not need to receive any communication from the destination node to determine the antenna angle for communicating with the destination node.

Williams et al. does not add anything to the teachings of De Champlain et al. Specifically, Williams et al. does not teach or suggest determining an identification of a second node from an initial portion of an incoming message, nor does Williams et al. teach or suggest determining a preferred angle based on the second node's identification.

Present claim 1 (and equivalently claim 16) requires:

1. (original) A method for operating a relay station having a directional antenna configured to forward messages from a first node

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to a second node using a wireless physical layer signaling protocol, the method comprising:

receiving from the first node a wireless transmission for delivery at the second node;

determining an identification of the second node from an initial portion of the wireless transmission;

determining, using the second node's identification, a preferred antenna angle for the directional antenna;

steering the directional antenna according to the preferred antenna angle; and

retransmitting the wireless transmission to the second node using the directional antenna.

Based on the arguments presented above, De Champlain et al. nor Williams et al. teaches or suggests the features of present claims 1 and 16. Thus, withdrawal of the 35 USC § 103 rejection of independent claims 1 and 16 is respectfully requested.

The remaining claims are dependent upon claim 1 which the Applicant believes are allowable over the cited prior art of record for the same reasons provided above.

Based on the arguments presented above, withdrawal of the 35 USC § 103 rejection of claims 1, and 3-16 is respectfully requested.

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Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application, including claims 1, and 3-16, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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